

What is claimed is:

1. A method for remotely testing the proper functioning of a telecommunications network, comprising the steps of :

sending a control signal from a controller located at a remote user location, which is accessible to said telecommunications network, to a remote call processor (RCP) having at least one telephone, said remote call processor (RCP) located in a service area of said telecommunications network;

receiving said control signal in said remote call processor (RCP);

establishing a first communications link including said controller and said remote call processor (RCP);

processing said control signal in said remote call processor (RCP) wherein said control signal includes instructions for establishing a test telephone call from said remote call processor (RCP) through a calling area switch located in said service area to a destination telecommunications device and for re-synchronizing said remote call processor (RCP) with a time protocol server;

accessing said time protocol server so as to re-synchronize said remote call processor (RCP);

establishing said test telephone call from said remote call processor (RCP) through said telecommunication network to a destination telecommunications device;

receiving in said remote call processor (RCP), telecommunications signals related to said test telephone call wherein said telecommunications signals include audio signals; and

testing by said controller of said telecommunications signals related to said test telephone call to verify proper operation of said telecommunication.

2. The method of Claim 1 wherein the step of establishing said test telephone call from said remote call processor (RCP) through said telecommunication network to a destination telecommunications device includes time stamping events relating to said test telephone call at least at said remote call processor (RCP).

3. The method of Claim 2 wherein the step of establishing said test telephone call from said remote call processor (RCP) through said telecommunication network to a destination telecommunications device further includes time stamping events relating to said test telephone call at said destination telecommunications device, said destination telecommunications device including a remote call processor (RCP).

4. The method of Claim 4 wherein the step of establishing said test telephone call from said remote call processor (RCP) through said telecommunication network to a destination telecommunications device further includes determining a time duration of said test telephone call at least at said remote call processor (RCP).

5. The method of Claim 3 wherein the step of establishing said test telephone call from said remote call processor (RCP) through said telecommunication network to a destination telecommunications device further includes determining a time duration of said test telephone call at said destination telecommunications device.

6. A method for remotely testing the proper functioning of a telecommunications network, comprising the steps of :

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sending a control signal from a controller located at a remote user location, which is accessible to said telecommunications network, to a remote call processor (RCP) having at least one telephone, said remote call processor (RCP) located in a service area of said telecommunications network;

receiving said control signal in said remote call processor (RCP);

establishing a first communications link including said controller and said remote call processor (RCP);

processing said control signal in said remote call processor (RCP) wherein said control signal includes instructions for establishing a test telephone call from said remote call processor (RCP) through a calling area switch located in said service area to a destination telecommunications device and for re-synchronizing said remote call processor (RCP) with a time protocol server;

accessing said time protocol server so as to re-synchronize said remote call processor (RCP);

establishing said test telephone call from said remote call processor (RCP) through said telecommunication network to a destination telecommunications device;

transmitting from said remote call processor (RCP) through said telecommunication network at least one test short message service (SMS) data to said destination telecommunications device; and

testing by said controller of said destination telecommunications device receiving said test SMS data so as to verify proper operation of SMS signal transmission in said telecommunication network.

7. The method of Claim 6 wherein said step of transmitting at least one test short message service (SMS) data to said destination telecommunications device includes transmitting a plurality of test SMS data in a predetermined period of time.

8. A method for remotely testing the proper functioning of a telecommunications network, comprising the steps of :

sending a control signal from a controller located at a remote user location, which is accessible to said telecommunications network, to a remote call processor (RCP) having at least one telephone, said remote call processor (RCP) located in a service area of said telecommunications network;

receiving said control signal in said remote call processor (RCP);

establishing a first communications link including said controller and said remote call processor (RCP);

processing said control signal in said remote call processor (RCP) wherein said control signal includes instructions for establishing a test telephone call from said remote call processor (RCP) through a calling area switch located in said service area to a destination telecommunications device;

establishing said test telephone call from said remote call processor (RCP) through said telecommunication network to a destination telecommunications device;

receiving in said remote call processor (RCP), telecommunications signals related to said test telephone call wherein said telecommunications signals include audio signals; and

testing by said controller of said telecommunications signals related to said test telephone call to verify proper operation of said telecommunication network, including determining characteristics of said audio signals.

9. The method of Claim 8 wherein the step of testing by said controller of said telecommunications signals related to said test telephone call further includes classifying said audio signals as at least one of a Busy, Fast Busy, Voice, Fax, Ring, Test Tone or Other signal.

10. The method of Claim 9, wherein said step of testing by said controller of said telecommunications signals related to said test telephone call further includes determining whether the test telephone call passed or failed based on said telecommunications signals related to said test telephone call from said remote call processor (RCP) telecommunication signals from said destination telecommunication device.

11. A remote controller system for remotely testing at least one telecommunication network of a calling area in a telecommunications network, said controller system comprising:

a controller located remotely from said at least one telecommunication network of said calling area, said controller being capable of generating, sending, receiving and processing audio signals or telecommunications data signals;

at least one remote call processor having at least one telephone, for generating test calls;

a time protocol server for providing time synchronization data for said at least one remote call processor (RCP);

a build script mode application executed by said controller which builds test calls having at least said audio signals to test proper operation of said telecommunication network; said build scripts mode application further including first commands for selecting said at least one remote call processor (RCP), to place said test calls in said calling area through said telecommunication network and second commands for recording said audio signals which are present in said test calls;

a run mode application executed by said controller for executing said first commands and said at least second commands; and

a results mode application executed by said controller to process, display, and store in a memory accessible to said controller, a result from said test calls.

12. The remote controller system of Claim 11 further comprising a schedule mode application executed by said controller to execute said test calls on a predetermined schedule.

13. The remote controller system of Claim 11 further comprising a configure remote call processor (RCP) mode application executed by said controller which may configure said at least one remote call processor (RCP) in said telecommunications system.

14. The remote controller system of Claim 13 wherein said configure remote call processor (RCP) mode application executed by said controller includes a time re-

synchronization mode application to synchronize said at least one remote call processor (RCP) with said time protocol server.

15. The remote controller system of Claim 13 wherein said configure remote call processor (RCP) mode application executed by said controller includes an audio analysis configuration mode application to initialize audio analysis parameters for said at least one remote call processor (RCP).

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